16. marts 2021 

**Application Form**

*Call for applications - Projects for Danish participation in an important project of common European interest (IPCEI) for hydrogen. In the following, the submitted criteria and how they are to be filled in in this application form are reviewed.*

General note: Don’t use “we” but explicitly mention the company’s name throughout the document

**Background**

The application form can be completed in Danish or English, except for the summary / summary, which must be completed in both languages.

The application form consists of the following sections, where sections 3-7 reflect the five selection criteria according to the call for applications.

* Section 1. General information
* Section 2. Summary
* Section 3. Selection Criterion 1: The project's contribution to meeting IPCEI criteria
* Section 4. Selection criterion 2: Project focus and effect
* Section 5. Selection criterion 3: Project budget and funding (see budget form)
* Section 6. Selection criterion 4: Organization of the project
* Section 7. Selection criterion 5: Project structure, realization and feasibility
* Section 8. Consent to the sharing and processing of information

All sections must be filled in substantially so that the description can be read in context. The completion of the application form must be kept as short and precise as possible, but must at the same time be sufficiently informative to be able to form the basis for a thorough evaluation of the overall application. In addition, however, reference can be made to more detailed appendices.

# Section 1: General Information

**Master Data**

Fill in the forms below to explain the project master data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project Title** | Title in English and Danish | | | | |
| **The location of the project** | Address | | | City | Post code |
| **Project Start Dates** | Year | Month | Day |  | |
| **Project End Dates** | Year | Month | Day |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project Participants** | **CVR. no.** | **Address** | **Contact Person** | | |
| **Name** | **Tel.No** | **E-mail** |
| Name of principal Applicant |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |
| Possible Partner |  |  |  |  |  |

**Location in the value chain for Hydrogen**

What part of the hydrogen value chain is the project within?

|  |  |
| --- | --- |
| Hydrogen Production | Hydrogen transmission and distribution |
| Hydrogen and hydrogen-based products in industrial applications | Hydrogen and hydrogen based products in mobility |
| Hydrogen and hydrogen based products in the energy sector | Hydrogen and hydrogen-based products for residential applications |
| **O**ther things |  |

# Section 2. Summary

Briefly describe the purpose of the project in a less technical and accessible language in resp. Danish and English.

This description will be published on the Danish Business Authority's website if the project receives a commitment for support, and therefore contains a limited number of words.

**Schuman additional recommendations:**

* Clarify the market intended to be served by the company through the IPCEI in terms of products, potential customers, applications, geographical coverage
* Mention what kind of stakeholders will be involved, including the suppliers(such as where the electrolyser will be bought from)

**Summary in Danish (max. [350] words)**

[…]

**Summary in English (max. [350] words)**

[…]

# Section 3: Selection Criteria 1. Project contribution to meet IPCEI criteria

According to the overall criterion “1. The project's contribution to meeting the IPCEI criteria ”it must be made probable that the project as a sub-project of an important project of common European interest (IPCEI) can contribute to meeting the eligibility criteria in the IPCEI guidelines. The overall IPCEI will consist of several sub-projects from different Member States, so the project applied for should not be able to ensure the fulfillment of the criteria alone.

The criteria constitute points 11-24 (section 3) of the IPCEI Guidelines, and each point is asked to explain how the project contributes to meeting each point. Particular emphasis will be placed on contributions to compliance with paragraphs 13-19 and 22-24.

The criteria can be read in its full length including footnotes in Annex 1 to the application form.

Please complete the form below.

|  |  |
| --- | --- |
| **Point 13** | [Explanation of how the project is currently or in the near future expected to be able to contribute to meeting the criterion: “13. The Commission can also consider an 'integrated project', ie. a group of individual projects that form part of a common structure, a common roadmap or a common program that has the same objectives and is based on a coherent systemic approach, as eligible. The individual parts of the integrated project can relate to different levels of the supply chain, but must be complementary and a prerequisite for the achievement of the important common European goal. "]  **Schuman additional recommendations:**   * Is there a possibility that the CO2 storage could be used in other plants throughout Europe? One could make an argument about energy security? |
| **Point 14** | [Explanation of how the project contributes to meeting the criterion: “14. The project must contribute in a concrete, clear and identifiable way to one or more EU objectives and must have a significant impact on the EU's competitiveness, on sustainable growth, on social challenges or on value creation throughout the EU. "]  **Schuman additional recommendations:**   * The goals would be Green Hydrogen(part of the European Green New Deal), Carbon recyclability, and Energy security |
| **Point 15** | [Explanation of how the project contributes to meeting the criterion: “15. The project must represent a significant contribution to the EU's objectives, e.g. crucial for the Europe 2020 strategy, the European Research Area, the European strategy for key support technologies, Europe's energy strategy, the framework for climate and energy policies up to 2030, the European strategy for security of energy supply, Europe's electronics strategy, the trans-European transport and energy networks, Union flagship initiatives, such as Innovation in the EU, the Digital Agenda for Europe, a resource-efficient Europe or the integrated industrial policy of a globalized world. "]  **Schuman additional recommendations:**   * Here it would be appropriate to discuss the specific quantifiable contribution this project can make, specific numbers are recommended. |
| **Point 16** | [Explanation of how the project contributes to meeting the criterion: “16. The project should normally involve more than one Member State, and its benefits should not be limited to the Member States funding it, but should benefit a significant part of the EU. The benefits of the project must be clearly defined in a concrete and identifiable way. ”]  **Schuman additional recommendations:**   * Any potential partners that will result are relevant, you could just list potential firms in Germany or other EU countries that could be included at a later stage. |
| **Point 17** | [Explanation of how the project contributes to meeting the criterion: “17. The benefits of the project must not be limited to the companies or sector concerned, but must be of wider relevance and application to the EU economy or society through positive spill-over effects, which are clearly defined in a concrete and identifiable way (e.g. .by having systemic effects at several levels of the value chain or in upstream or downstream markets or having alternative uses in other sectors or leading to modal shifts) ”.]  **Schuman additional recommendations:**   * Diffusion of non-IP related results(conferences, publication, workshops, funding PHD\Post-docs, education, collaborative research programs, press releases and media activities * Diffusion of IP protected results, either state that any resulting patents will be open source OR that you will abide by FRAND conditions when licensing the patent. * Also emphasize that the project will be open and allow for visitation by the general public, if there is an FID phase include that you will offer the opportunity for researchers and SME’s to learn. * A work plan would be useful here, but perhaps more importantly, the letters of support will help this section. |
| **Point 18** | [Explanation of how the project contributes to meeting the criterion: “18. The project must involve co-financing from the beneficiary ”] |
| **Point 19** | [Explanation of how the project contributes to meeting the criterion: “19. The project must respect the principle of phasing out environmentally harmful subsidies, cf. the roadmap to a resource-efficient Europe and several Council conclusions ”.]. |
| **Point 22** | [Explanation of how the project contributes to meeting the criterion: “22. Projects involving industrial use must make it possible to develop a new product or service with a high level of research or innovation content and / or to introduce a fundamentally innovative production process. Regular updates without an innovative dimension of existing facilities and the development of new versions of existing products can not be considered important projects ”]  **Schuman additional recommendations:**   * Explain the state of the art, some technical locks that prevent progress, and then explain what this project will do to move research forward. |
| **Point 23** | [Explanation of how the project contributes to meeting the criterion: “23. Environmental, energy or transport projects must either be of major importance for the EU's environmental strategy, energy strategy, including security of energy supply, or transport strategy, or contribute significantly to the internal market, including but not limited to these specific sectors "]  **Schuman additional recommendations:**   * If you are aware of any specific resources which are currently imported into the EU which will need less after such a project please list these. * When discussing the effect on the internal market, be sure to say that the project is significant but that it is also proof of concept, which once successful will significantly lower barriers to entry(which will mean that competition can enter and reduce any long term market power) |
| **Point 24** | [Explanation of how the project contributes to meeting the criterion ”24. In order to be described as an important project, a project must have great quantitative or qualitative significance. It must either be particularly large in size or use and / or involve a very significant technological or financial risk. ”]  **Schuman additional recommendations:**   * Emphasize that the project cannot be done on a smaller scale than the one specified due to the multiple moving parts, specific examples greatly strengthen the case. |
| **Other points *(11, 12 and 20)*** | [Explanation of how the project contributes to meeting the other criteria in Section 3 of the IPCEI Guidelines, including paragraphs 11, 12 and 20]  **Schuman additional recommendations:**   * Paragraph 11 reads: In determining whether a project falls within Article 107(3)(b) of the Treaty, the following criteria will apply: * Paragraph 12 reads: The aid proposal concerns a single project which is clearly defined in respect of its objectives as well as the terms of its implementation, including its participants and its funding[(8)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52014XC0620(01)#ntr8-C_2014188EN.01000401-E0008). * Paragraph 20 reads:  |  |  |  | | --- | --- | --- | | In addition to the cumulative criteria in Section 3.2.1, the Commission will take a more favourable approach where:   |  |  | | --- | --- | | * (a) | * the project has been designed so as to make it possible for all interested Member States to participate, having regard to the type of project, the objective pursued and its financing needs; * the design of the project involves the Commission or any legal body to which the Commission has delegated its powers, such as the European Investment Bank; * the selection of the project involves the Commission or any legal body to which the Commission has delegated its power, provided that this body is acting in that purpose as an implementing structure; * the governance structure of the project involves the Commission — or any legal body to which the Commission has delegated its powers — and several Member States; * the project involves important collaborative interactions in terms of number of partners, involvement of organisations of different sectors, or the involvement of undertakings of different sizes; * the project involves co-financing by a Union fund[(22)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52014XC0620(01)#ntr22-C_2014188EN.01000401-E0022). | | |

# Section 4: Selection criteria 2. Focus and effect of the project

The focus and effect of the project must be accounted for in accordance with the overall criterion ”2. The project's focus and effect ”. The statement is structured according to the sub-criteria.

**2.a The project's focus on promoting the development and implementation of renewable hydrogen, which can contribute to meeting Denmark's and the EU's climate goals for 2030, as well as supporting the long-term transition to climate neutrality in 2050.**

[Explain how the project, through a focus on promoting the development and implementation of renewable hydrogen, can contribute to meeting Denmark and the EU's climate goals for 2030, including Denmark's goal of 70 per cent. greenhouse gas reduction in 2030 and the EU’s 2030 climate target of at least 55 per cent. greenhouse gas reduction in 2030 and climate neutrality in 2050. In addition, an account must be given of how the project contributes to promoting the development of a European hydrogen market in accordance with the EU's hydrogen strategy. [[1]](#footnote-1)]

**2.b The project's high technological maturity and contribution to substantial scaling of PtX technologies for commercial use and market - based rollout.**

[Explain how the project is characterized by high technological maturity. Projects characterized by high technological maturity are defined as having a TRL level (Technological Readiness Level) of 7-9 at the start of the project.

In addition, it must be explained how the project contributes to substantial scaling of PtX technologies with a view to commercial use and market-based roll-out. The description must state how the project concretely scales PtX technologies substantially, including which PtX technologies are involved. At the same time, it must be stated how the project leads to commercial use of the specific technology, and how the project can contribute to the roll-out of the technology on market-based terms.]

**Schuman additional recommendations:**

* Recall that though the project needs to be mature, it must not be tested, this is meant to be innovative.

**2.c The project's contribution to fulfilling the mission Green fuels for transport and industry (Power-to-x etc.) in the government's research strategy on the green solutions of the future.**

[Explain how the project contributes to fulfilling the mission Green fuels for transport and industry (Power-to-x etc.) in the government's research strategy on the green solution of the future. The description of the mission in the research strategy is inserted below.[[2]](#footnote-2)]

|  |
| --- |
| **2. Green fuels for transport and industry(Power-to-x,etc)**  Without a targeted effort, especially within heavy land, ship and air transport as well as some parts of the industry, it is not considered possible that Denmark's energy system in 2050 is based on 100 per cent. renewable energy.  Solutions must be developed to make new green fuels. This can be done, for example, by converting electricity from renewable energy into products that can be used to reduce emissions from parts of the transport and industrial sector where cost-effective alternatives to fossil energy do not exist. The potential for CO₂ reduction from Power-to-X is large, as it can theoretically replace all fossil fuels provided there is sufficient RE power, and possibly carbon, available. It is estimated that there is a long-term technical reduction potential of DKK 1.5-7.5 million. t., of which 1-4 mio. t. in international shipping and aviation (which does not count in the Danish inventory of greenhouse gas emissions). By 2030, the technical domestic potential is estimated to be 0.5-3.5 million. t. CO₂ (there is an overlap with the potential for CCUS, as carbon can both be stored and used for eg Power-to-X products, cf. above) .4  The demand for green hydrogen and other Power-to-X products is not sufficient for a market-driven expansion, either in Denmark or abroad. This may be due to the high costs associated with production, so that the price of green hydrogen and other hydrogen-based products will be relatively high compared to fossil alternatives. Targeted research, development and demonstration efforts are needed to bring these sub-technologists to a level of technological maturity that enables commercial use, as well as a need to demonstrate how Power-to-X systems can be integrated into it. total energy system, e.g. together with the heating sector.  Denmark can build on a strong research tradition within especially hydrogen and electrolysis with research environments at several universities. There is great potential for a Danish business strength position within Power-to-X. Business forces within green energy technology, maritime industries, transport and logistics, chemicals, etc. provides the opportunity to build partnerships that can cover the entire Power-to-X value chain.  (1)  Potentialet er behæftet med meget høj usikkerhed både i forhold til effekt, dokumentation og udbredelsespotentiale. Der skal derfor tages et markant forbehold i forhold til realiseringen af potentialet. Skønnene kan ikke lægges sammen grundet flere mulige overlap. Der kan ikke sættes lighedstegn mellem igangsættelsen af forskningsmissionerne og realiseringen af reduktionspotentialerne, jf. appendiks i bilag 1. |

**2.d The project's contribution to promoting competitive and cost-effective solutions within the hydrogen area.**

[Explain how the project contributes to promoting solutions that are competitive in terms of being able to compete on market terms and cost-effective in terms of delivering greenhouse gas reductions.]

**Schuman additional recommendations:**

* Market KPI’s as well as the figures mentioned in your presentation should be here..

**2.e The project benefit after the end of the support period.**

[Explain the recovery of the project after the end of the support period, including expectations of whether and how the project will be able to continue on market-based terms.]

**Schuman additional recommendations:**

* Storyline, the funding will be the key to unlocking a new market and will allow the company to partake on other similar projects without state aid. In other words, the goal of the funding will be to weather an initially bad period but then as it matures the project will be competitive.

# Section 5: Selection Criteria 3. Project budget and funding

The project's budget and financing must be accounted for in accordance with the overall criterion “3. Project budget and financing ”.

[Explain the following:

• Project budget in overall figures in addition to a completed and attached budget form. Indicate assumptions for all key budget items and describe the overall plan for financing the project, including an assessment that the plan is feasible.

• Financing needs including a statement of the costs applied for to be reimbursed, according to the Commission's definition of eligible costs (see Annex 2 for eligible costs).

• The size of any other funding, including other public funding and / or EU funding, and where it comes from and what costs it covers.

• The size of self-financing, as it will be included in the assessment of how large a share the self-financing constitutes of the total financing.

• That the project has the necessary solidity and liquidity to be implemented.]

**Schuman additional recommendations:**

* This seems to be content around the Funding Gap questionnaire

# Section 6: Selection Criteria 4. Project Organization

The project's budget and financing must be accounted for in accordance with the overall criterion ”4. Project organization ”.

* [Explain the following:
* • Applicant's professional, organizational and financial strength in order to ensure the necessary robustness in the implementation of the applied project as a sub-project in an IPCEI.
* • That the applicant has the necessary legal and financial competencies to complete the state aid process.
* • The competencies of the participating resource persons, including project management competence and the relevant areas of experience of any participating companies.
* • The participation of several links in the value chain of relevant actors in order to help ensure the implementation of the applied project in accordance with its purpose and to help promote the dissemination of similar technology solutions after the end of the project.]

**Schuman additional recommendations:**

* Add a description of the company and it’s affiliates here. Avoiding, words like “number one”, “leader”, “best in the market”, etc. Identify which markets the company is currently active in and the R&D strategy.

# Section 7: Selection criteria 5. Project structure, realization and feasibility

The project's budget and financing must be accounted for in accordance with the overall criterion ”5. Project structure, realization and feasibility ”.

[Explain the project timetable, including the timetable for obtaining the necessary permits and local planning basis. The implementation of the project should be described in the form of **work packages** with an appropriate number of relevant milestones.

It must be stated that the project will not be implemented in the applied version - either not at all or in a significantly weakened version if no support is obtained. It must be stated how the grant for the applied project will increase the scope, extent, pace of the effort in relation to a situation where no support is obtained.

In addition, it must be explained that the project can be carried out within the current framework conditions and legislation for the purchase and sale of electricity and energy, energy agreements, etc. or within adopted or expected but not yet implemented changes thereto. In addition, it must be explained that the project can obtain the necessary physical establishment permits such as building and environmental approvals, etc. within a reasonable time horizon.

Finally, it must be stated how the project's results are collected and publicly disseminated with the necessary impact. It must be stated who the project's results will be disseminated to, how the results will be disseminated (communication platforms, visitor service, etc.) and how results will be collected and processed along the way, including any exceptions in the dissemination due to IPR questions or lign. (confidential information).]

**Schuman additional recommendations:**

* Work packages are required here.
* The letter of support will help this session
* If permits have already been acquired or are in the process of being acquired mention this here.
* Including some past project can be important so that the company showcases it has the capacity to undertake such a project.
* Please be sure to say that the project will not go ahead without the funding. The project is conditional on the funding and the alternative option is no project.

# Section 8: Consent to processing and sharing information

The submitted information will be handled in accordance with the Data Protection Regulation and the draft consent form in Annex 3, which elaborates on the applicant's rights to information sharing.

[Please indicate here whether you want to give your consent to, 1) that your provided contact information, etc. processed by the Danish Business Authority (YES / NO)

and 2) whether you want to give consent for the information to be shared with the Commission and other Danish authorities companies (YES / NO)]

Read more about consent and your rights in Annex 3 on consent.

1. Meddelelse fra Kommissionen ”En strategi for brint med henblik på et klimaneutralt Europa” ([Link](https://eur-lex.europa.eu/legal-content/DA/TXT/PDF/?uri=CELEX:52020DC0301&from=DA)) [↑](#footnote-ref-1)
2. Fremtidens grønne løsninger - Strategi for investeringer i grøn forskning, teknologi og innovation, s. 21 ([Link](https://ufm.dk/publikationer/2020/filer/1-fremtidens-gronne-losninger-strategi-for-investeringer-i-gron.pdf)) [↑](#footnote-ref-2)